

APPENDIX B

AVIATION COMMAND AND CONTROL

Command and control (C²) is vital to synchronized Army operations. This appendix discusses those elements essential to aviation C². Emerging G systems are discussed in appendix D.

B-1. COMMAND AND CONTROL RESPONSIBILITY

a. Coordination of Army aviation C² begins with the force commander; he alone is responsible for the outcome of combat actions on the battlefield. Army aviation commands and controls in the same manner as any other combined arms organization. However, battlefield distances over which aviation units routinely operate encompass the entire area of operations (AO) of the force. This makes the commander's decision about where to place himself very difficult.

b. Thus, special considerations must be given to ensure effective C². Army aviation has certain C² requisites that support the force with agile air maneuver. These requisites, which can synchronize massed aviation combat power against enemy weaknesses, are—

- Timely intelligence.
- Reliable communications.
- Effective aviation liaison.
- Accurate weather forecasting.
- Flexible, mobile command posts (CPs).
- Efficient airspace coordination.

c. The aviation commander must advise the force commander about the C² capabilities provided by Army aviation when employed with combined arms, joint, combined, or special operations forces. Army aviation commanders from echelons above corps (EAC) to battalion level are responsible for coordinating, through the chain of command, with the force commander and assisting him in the employment of Army aviation forces.

d. Another critical element of Army aviation C² is the C²-protect function. The purpose of C²-protection is to maintain friendly capabilities for effective battle command by negating or turning to friendly advantage adversary counter-C² actions. These actions can be both active and passive. Passive means include operational security (OPSEC); communications security (COMSEC); and survivability measures like mobility, hardening,

and geographic dispersal to limit our exposure and vulnerability to electronic warfare (EW) attacks. Active means involve both the direct attack of adversary counter-C² resources and actions taken to limit his ability to plan and control the counter-C² effort. FM 100-6 contains a detailed discussion of the C² protect function.

B-2. COMMAND POSTS

a. Aviation uses highly mobile ground and aerial command posts to control and support combat operations. Army aviation's C² requirements are similar to those of any other maneuver force. Aviation headquarters normally establish a main and rear CP. When required, a tactical CP is established. This CP distribution allows aviation to operate efficiently; it minimizes the difficulty of establishing and sustaining more than two echelons of control at any one time.

b. The main CP controls current aviation operations while planning future operations; it is normally located beyond the effective range of threat artillery.

c. The rear CP concentrates on sustaining the aviation force. It should be located near the force logistics base and elements. When required, a forward tactical CP will locate forward to direct and provide control for high-tempo aviation maneuver operations. A tactical CP usually is configured with a limited number of mobile ground assets; it may also be in an aerial platform.

d. Aviation commanders at all levels position themselves to best influence the conduct and outcome of aviation and combined arms operations. This is the most critical task. They must be prepared to accept and C² ground forces for limited periods of time. Normally, such operations are mission specific. However, objectives assigned must equate to the combat power and sustainment capability of an organized task force. Figure B-1 illustrates a typical brigade C² network.

B-3. COMMUNICATIONS

a. Army aviation commanders and staffs need reliable, long-range, redundant communication systems. With these, they can exercise effective C² throughout the supported force's AO. Aviation forces must maintain and sustain the same communications capabilities as any other maneuver force.

b. Radio is normally the primary means of internal and external communications. To expedite C², Army aviation uses the following: frequency modulated (FM), high-frequency (HF) amplitude modulated (AM) voice, ultra-high frequency (UHF), very high frequency (VHF), common-user systems, and internal wire.

c. When operating over extended battlefield distances, aviation commanders must have access to varying battlefield communication systems for relay and retransmission capabilities. These systems help ensure uninterrupted battlefield communications, especially at terrain flight/nap-of-the-earth (NOE) altitudes.

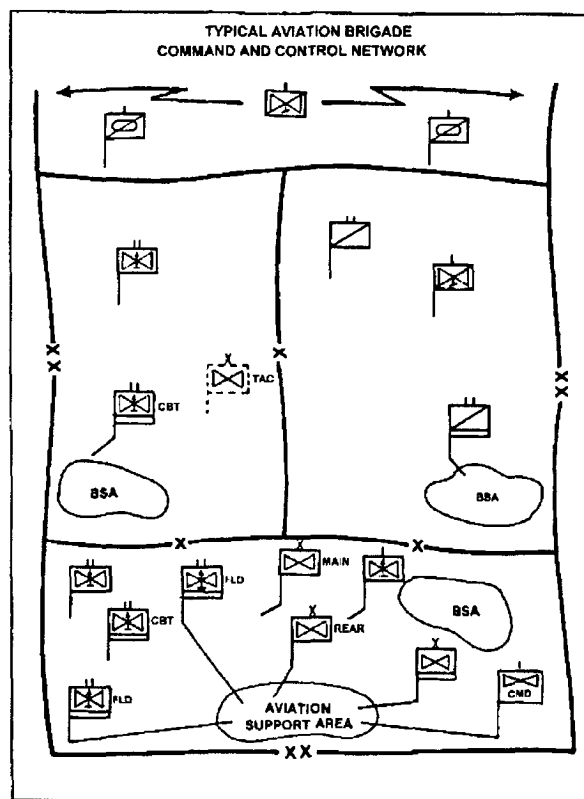


Figure B-1

B-4. INTELLIGENCE

a. Army aviation's combat success depends on the aviation commander's ability to "see the battlefield." Accurate and timely intelligence about the enemy, weather, and terrain is imperative for all aviation operations. Because of the density, lethality, and sophistication of threat target acquisition radars and air defense (AD) weapon systems, Army aviation must have current intelligence information that encompasses the supported maneuver force AO.

b. To see the battlefield, the aviation commander must drive his intelligence battlefield operating system (BOS) by specifying his priority intelligence requirements (PIRs) and targeting needs. He requires his intelligence assets to provide the intelligence he needs in the form he can use in time to support his decision-making process. Aviation commanders must be able to create and take advantage of windows of opportunity. They also must be able to exploit enemy vulnerabilities and weaknesses. They must know—

- The entire force AO.
- The current and forecasted environmental conditions.

- The terrain and air avenues of approach.
- The nature, capabilities, and activities of the threat.

B-5. AIRSPACE COORDINATION

a. Airspace coordination is critical to all Army aviation operations. Army airspace command and control (A²C²) is the Army's process for accomplishing airspace coordination. Potential users of the aerial dimension of the battlefield include Army aviation, AD, military intelligence, fire support, and jointicombined air forces.

b. A²C² maximizes joint effectiveness by ensuring simultaneous airspace use—synchronized in time, space, and purpose—to produce maximum combat power at decisive moments. The maneuver commander's plans must address the best use of the airspace throughout the AO. Using airspace effectively enhances total operational capabilities and is a key node in fratricide prevention.

c. Another key element in fratricide prevention is the correct use of published identification, friend or foe (radar) (IFF) modes and codes. The airspace control authority directs the tactical use of IFF in each theater. Commanders must ensure that the IFF equipment in their aircraft is always coded, maintained, and used properly to ensure the safety of their flight crews.

B-6. DEEP OPERATIONS COORDINATION CELL (DOCC)

a. The DOCC now exists at every corps and many division tactical operations centers to facilitate the conduct of deep operations. The DOCC allows corps and division staffs to coordinate all aspects of the deep battle at a single location. This coordination directly benefits an aviation commander.

b. Functions of the DOCC include—

- Planning and executing deep operations in support of corps/division operational plans (OPLANS).
- Synchronizing combat, combat support (CS), and combat service support (CSS) to support deep operations.
- Determining high-payoff targets for deep operations.
- Interfacing with the Joint Targeting Coordination Board (JTCB) and the corps targeting cell to provide a linkage between joint and organic fires.
- Developing the detection and delivery concepts to support deep operations.